

R E M A R K S

The above amendments to the claims were made for the purpose of improved clarity and involve only editorial revisions.

Enclosed is a MARKED UP VERSION OF THE AMENDMENTS TO THE CLAIMS.

New claims 54 and 55 are supported by original claim 1.

A check for \$36 is enclosed in payment of two additional claims.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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Enclosures: (1) MARKED UP VERSION OF THE AMENDMENTS TO THE CLAIMS

(2) A CHECK FOR \$36 FOR TWO EXTRA CLAIMS



**MARKED UP VERSION OF THE AMENDMENTS TO THE CLAIMS**

1. **(Amended)** A polynucleotide selected from the group consisting of:

(a) a polynucleotide encoding a protein having the amino acid sequence of SEQ ID NO 38, or a polynucleotide variant thereof encoding a modified amino acid sequence having at least one deletion, addition, substitution or alteration, said [variant] polynucleotide variant being [suitable for use in] capable of accelerating the biosynthesis of ML-236B; and

(b) a polynucleotide encoding a protein having the amino acid sequence of SEQ ID NO 42, or a polynucleotide variant thereof encoding a modified amino acid having at least one deletion, substitution or alteration, said [variant] polynucleotide variant being [suitable for use in] capable of accelerating the biosynthesis of ML-236B.

2. **(Amended)** A polynucleotide according to claim 1 comprising [SEQ ID NO 37, or comprising] a mutant or variant [thereof, suitable for use in] of SEQ ID NO 37 capable of accelerating the biosynthesis of ML-236B.

4. (Amended) A polynucleotide according to claim 1 comprising DNA [obtainable] obtained from transformed *Escherichia coli* pSAKexpE SANK 72499 (FERM BP-7005).

5. (Amended) A polynucleotide according to claim 1 comprising [SEQ ID NO 41, or comprising] a variant [thereof, suitable for use in] of SEQ ID NO 41 capable of accelerating the biosynthesis of ML-236B.

7. (Amended) A polynucleotide according to [Claim] claim 1 comprising DNA [obtainable] obtained from transformed *Escherichia coli* pSAKexpR SANK 72599 (FERM BP-7006).

8. (Amended) A polynucleotide according to claim 1 in [operative] combination with one or more other polynucleotides, said combination being [suitable for use in] capable of enhancing the production of [ML236B] ML-236B in [an] a ML-236B producing micro-organism.

9. (Amended) A polynucleotide according to claim 3 in [operative] combination with one or more other polynucleotides,

said combination being [suitable for use in] capable of enhancing the production of [ML236B] ML-236B in [an] a ML-236B producing micro-organism.

10. (Amended) A polynucleotide according to claim 4 in [operative] combination with one or more other polynucleotides, said combination being [suitable for use in] capable of enhancing the production of [ML236B] ML-236B in [an] a ML-236B producing micro-organism.

11. (Amended) A polynucleotide according to claim 6 in [operative] operative with one or more other polynucleotides, said combination being [suitable for use in] capable of enhancing the production of [ML236B] ML-236B in [an] a ML-236B producing micro-organism.

12. (Amended) A polynucleotide according to claim 7 in [operative] combination with one or more other polynucleotides, said combination being [suitable for use in] capable of enhancing the production of [ML236B] ML-236B in [an] a ML-236B producing micro-organism.

**13. (Amended)** A polynucleotide according to claim 8 comprising [the] a polynucleotide of SEQ ID NO 37, or a variant thereof [having similar function], in combination with one or more sequences selected from the group consisting of SEQ ID NO 37, SEQ ID NO 41, SEQ ID NO 43, SEQ ID NO 45, SEQ ID NO 47 [or], SEQ ID NO 49[, or variant] and variants thereof [having similar function].

**14. (Amended)** A polynucleotide according to claim 9 comprising [the] a polynucleotide of SEQ ID NO 37, or a variant thereof [having similar function], in combination with one or more sequences selected from the group consisting of SEQ ID NO 37, SEQ ID NO 41, SEQ ID NO 43, SEQ ID NO 45, SEQ ID NO 47 [or], SEQ ID NO 49[, or variant] and variants thereof [having similar function].

**15. (Amended)** A polynucleotide according to claim 10 comprising [the] a polynucleotide of SEQ ID NO 37, or a variant thereof [having similar function], in combination with one or more sequences selected from the group consisting of SEQ ID NO 37, SEQ ID NO 41, SEQ ID NO 43, SEQ ID NO 45, SEQ ID NO 47 [or],

SEQ ID NO 49[, or variant] and variants thereof [having similar function].

16. (Amended) A polynucleotide according to claim 11 comprising [the] a polynucleotide of SEQ ID NO 37, or a variant thereof [having similar function], in combination with one or more sequences selected from the group consisting of SEQ ID NO 37, SEQ ID NO 41, SEQ ID NO 43, SEQ ID NO 45, SEQ ID NO 47 [or], SEQ ID NO 49[, or variant] and variants thereof [having similar function].

17. (Amended) A polynucleotide according to claim 12 comprising [the] a polynucleotide of SEQ ID NO 37, or a variant thereof [having similar function], in combination with one or more sequences selected from the group consisting of SEQ ID NO 37, SEQ ID NO 41, SEQ ID NO 43, SEQ ID NO 45, SEQ ID NO 47 [or], SEQ ID NO 49[, or variant] and variants thereof [having similar function].

18. (Amended) A polynucleotide according to claim 8 comprising [the] a polynucleotide of SEQ ID NO 41, or a variant thereof [having similar function], in combination with one or more sequences selected from the group consisting of SEQ ID NO

37, SEQ ID NO 41, SEQ ID NO 43, SEQ ID NO 45, SEQ ID NO 47 [or],  
SEQ ID NO 49[, or variant] and variants thereof [having similar  
function].

19. **(Amended)** A polynucleotide according to claim 9  
comprising [the] a polynucleotide of SEQ ID NO 41, or a variant  
thereof [having similar function], in combination with one or  
more sequences selected from the group consisting of SEQ ID NO  
37, SEQ ID NO 41, SEQ ID NO 43, SEQ ID NO 45, SEQ ID NO 47 [or],  
SEQ ID NO 49[, or variant] and variants thereof [having similar  
function].

20. **(Amended)** A polynucleotide according to claim 10  
comprising [the] a polynucleotide of SEQ ID NO 41, or a variant  
thereof [having similar function], in combination with one or  
more sequences selected from the group consisting of SEQ ID NO  
37, SEQ ID NO 41, SEQ ID NO 43, SEQ ID NO 45, SEQ ID NO 47 [or],  
SEQ ID NO 49[, or variant] and variants thereof [having similar  
function].

21. **(Amended)** A polynucleotide according to claim 11  
comprising [the] a polynucleotide of SEQ ID NO 41, or a variant

thereof [having similar function], in combination with one or more sequences selected from the group consisting of SEQ ID NO 37, SEQ ID NO 41, SEQ ID NO 43, SEQ ID NO 45, SEQ ID NO 47 [or], SEQ ID NO 49[, or variant] and variants thereof [having similar function].

**22. (Amended)** A polynucleotide according to claim 12 comprising [the] a polynucleotide of SEQ ID NO 41, or a variant thereof [having similar function], in combination with one or more sequences selected from the group consisting of SEQ ID NO 37, SEQ ID NO 41, SEQ ID NO 43, SEQ ID NO 45, SEQ ID NO 47 [or], SEQ ID NO 49[, or variant] and variants thereof [having similar function].

**24. (Amended)** A polynucleotide according to claim 23 [that is suitable for] capable of accelerating the biosynthesis of ML-236B in [an] a ML-236B producing micro-organism when introduced in the ML-236B producing micro-organism.

**27. (Amended)** A vector according to claim 26 [obtainable] obtained from *Escherichia coli* pSAKexpE SANK 72499 (FERM BP-7005) or *Escherichia coli* pSAKexpR SANK 72599 (FERM BP-7006).

30. (Amended) A host cell according to claim 29  
[characterized in that], wherein the host cell is [an] a ML-236B  
producing micro-organism.

31. (Amended) A host cell according to claim 30  
[characterized in that], wherein the host cell is *Penicilium*  
*citrinum*.

32. (Amended) A host cell according to claim 29  
[characterized in that], wherein the host cell is *Escherichia*  
*coli*.

33. (Amended) A host cell according to claim 32  
[characterized in that], wherein the host cell is *Escherichia*  
*coli* pSAKexpE SANK 72499 (FERM BP-7005).

34. (Amended) A host cell according to claim 32  
[characterized in that], wherein the host cell is *Escherichia*  
*coli* pSAKexpR SANK 72599 (FERM BP-7006).

43. (Twice Amended) A method according to claim 40, wherein  
[production] the producing of ML-236B occurs in the absence of  
recombinant mlcA[, B, C or D] corresponding to SEQ ID NO 44[, 46,

48 or 50], recombinant mlcB corresponding to SEQ ID NO 46,  
recombinant mlcC corresponding to SEQ ID NO 48 or recombinant  
mlcD corresponding to SEQ ID NO 50.

**47. (Amended)** A polynucleotide encoding a protein having the amino acid sequence selected from the group consisting of SEQ ID NO 44, SEQ ID NO 46, SEQ ID NO 48 [or] and SEQ ID NO 50, or a variant polynucleotide encoding a modification of said amino acid sequence having a deletion, substitution, addition or alteration, said variant polynucleotide being [suitable for use in] capable of accelerating the biosynthesis of ML-236B.

**48. (Amended)** A polynucleotide according to claim 47 selected from the group consisting of SEQ ID NO 43, SEQ ID NO 45, SEQ ID NO 47 [or] and SEQ ID NO 49.